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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/289,507 04/09/99 DRZAIC

P INK-039

021323 WM02/0702
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EXAMINER

NGUYEN, J

ART UNIT

PAPER NUMBER

2673

DATE MAILED:

07/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/289,507

Applicant(s)

DRZAIC ET AL.

Examiner

Jimmy H. Nguyen

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 38-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 38-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

Art Unit: 2673

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because line 3 "these" should be changed to -three-. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 51-54 are objected to because of the following informalities: line 1, "1" should be changed to --38--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 and 38-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al. (USPN: 5,961,804).

As per claims 1-20 and 38-59, Jacobson et al. discloses a single microcapsule (320) (see fig. 6A) comprising a clear particle (620), a black particle (410) and a single colored particle (610), for producing a single colored subpixel (col. 12, lines 11-22). Jacobson et al. further teaches that in a full color RGB reflective display, a white color of a pixel is formed of individual colored states red, green and blue (col. 12, lines 7-11). In other words, it would have been obvious to one of ordinary skill in the art to recognize that Jacobson et al.'s full color RGB pixel, as a display element, is formed of three single-colored microcapsules as three single-

Art Unit: 2673

colored subpixels. Accordingly, the claimed invention obviously reads on Jacobson et al. as follows: Jacobson et al. discloses a display apparatus comprising an electrophoretic display element including three microcapsules (320) (fig. 6A) corresponding to three claimed capsules, and a plurality of electrodes (300, 310) adjacent the display element, wherein each microcapsule (320) comprises a sphere (620) corresponding to the claimed first species, a black microparticle (410) corresponding to the claimed second species, a colored microparticle (610/630) (i.e., a red microparticle of the first microcapsule, a green microparticle of the second microcapsule and a blue microparticle of the third microcapsule) corresponding to the claimed third species, and dyed suspending fluid (405) (col. 8, line 46). Jacobson et al. further teaches at least one of the plurality of electrodes has a size different from others of the plurality of electrodes (fig. 5B). Jacobson et al. further discloses that the particles may be heterogeneous in terms of physical properties and/or colors of the displays (col. 3, lines 14-17), and the colored suspending fluid may be substituted by a colorless fluid and colored particles (col. 3, lines 17-19). In other words, the selection of the particular colors of the microparticles and suspending fluid would have been an obvious matter of design choice, since such a modification would have involved a mere change in color which depends upon on the characteristic of the display, e.g., in a black and white display, black and white particles may be employed and in a full-color RGB display, green, blue and red particles may be employed. Therefore, it would have been obvious to obtain the invention as specified in claims above.

In regard to claims 21 and 60 as respectively applied to claims 18 and 57 above, Jacobson et al. discloses that the front electrode (300) should be transparent and the rear electrode (310) may be selective (col. 8, lines 51-53). In other words, it would have been obvious to one skill in

Art Unit: 2673

the art to recognize that Jacobson et al. obviously discloses the claimed invention as specified in claim above.

Response to Arguments

5. Applicants' arguments filed 05/24/2001, have been fully considered but they are not persuasive because as follows:

In response to applicants' argument filed "Jacobson fails to teach or suggest multiple capsules because Jacobson relies on one capsule having multiple species of particle to provide a color display", page 5, lines 26-28, Jacobson teaches a plurality of embodiments of the invention, and the claimed invention is obviously read on the embodiment as illustrated by figure 6A as described above, i.e., a full RGB color pixel comprises three microcapsules (320), each microcapsule (320) comprises the same refractive index sphere particle (620), the same black particle (410) and a different colored microparticle (610/630) which is a red microparticle of the first microcapsule, a green microparticle of the second microcapsule, or a blue microparticle of the third microcapsule. Accordingly, Jacobson obviously teaches multiple capsules, the ground of the rejection is therefore maintained.

In response to applicants' argument filed "Jacobson does not teach or fairly suggest white particles", page 6, lines 22-23, as described above, Jacobson further teaches that the particles may be heterogeneous in terms of physical properties and/or colors of the displays (col. 3, lines 14-17), and the colored suspending fluid may be substituted by a colorless fluid and colored particles (col. 3, lines 17-19). In other words, the selection of the particular colors of the microparticles and suspending fluid would have been an obvious matter of design choice, since such a modification would have involved a mere change in color which depends upon on the

Art Unit: 2673

characteristic of the display, e.g., in a black and white display, black and white particles may be employed, and in a full-color RGB display, green, blue and red particles may be employed, etc.. Therefore, the ground of the rejection is maintained.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-9051 for regular communications and (703) 308-6606 for After Final communications.

Application/Control Number: 09/289,507

Page 6

Art Unit: 2673

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

JHN

June 29, 2001



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600